U.S. ARMY DEFENSE AMMUNITION CENTER AND SCHOOL
Savanna, Illinois

US ARMY CORPS
OF
ENGINEERS
Rock Island District

Defense Environmental Restoration Program
for
Formerly Used Defense Sites
Ordnance and Explosive Waste

Archives Search Report

CONCLUSIONS AND RECOMMENDATIONS

FOR THE FORMER

MARTHA'S VINEYARD
NAVAL AUXILIARY AIR STATION

Martha's Vineyard, Massachusetts
Project Number D01MA048802
October 1994

PROJECT FACT SHEET
FORMERLY USED DEFENSE SITES
30 September 1994

1. **SITE NAME:** Martha's Vineyard Naval Auxiliary Air Station

SITE NUMBER: D01MA048800

LOCATION:
CITY: West Tisbury
COUNTY: Dukes
STATE: Massachusetts

PROJECT NUMBER: D01MA048802

CATEGORY: OEW

2. **POC:**

GEO DISTRICT POC:
NAME: Anne Laster
OFFICE: CENED-RE-AM
PHONE: (617) 647-8584

SUPPORT DISTRICT POC:
NAME: Edward M. McManus
OFFICE: CENCR-ED-DN/ SMCAC-ESL
PHONE: (815) 273-8825

GEO DIVISION POC:
NAME: Anne Laster
OFFICE: CENED-RE-AM
PHONE: (617) 647-8584

HEADQUARTERS POC:
NAME:
OFFICE: CEMP
PHONE:

TECHNICAL MANAGER:
NAME:
OFFICE: CEHND
PHONE:

3. **SITE DESCRIPTION:** The former Martha's Vineyard NAAS consisted of 685.912 acres of land located roughly at the center of the island of Martha's Vineyard, Massachusetts, almost completely surrounded by the Manuel E. Correllus State Forest. The site is a rough square, about one mile per side. The land is almost equally divided between the towns of West Tisbury and Edgartown (see plate 1). The land area comprising the former Martha's Vineyard NAAS is currently owned by Dukes County, Massachusetts, and is utilized as the island's sole commercial airport. Much of the land is undeveloped and serves as a buffer between the noise of aircraft operations and the surrounding State Forest. There is an administrative area southeast of the main runway which contains a number of structures, most of which date from the time the airport was a NAAS. Some of these structures are in use while others are empty and in various states of disrepair.

4. **SITE HISTORY:**

Martha's Vineyard Naval Auxiliary Air Facility (NAAF) (changed to NAAS in 1945) was built in 1942-43 to support the final phase of training for naval aviators and air crews prior to their deployment to aircraft carriers in the Pacific theater. It was located on 685.912 acres within the Martha's Vineyard State Forest and served as an auxiliary field for Quonset Point Naval Air Station (NAS) in Rhode Island. Thousands of men received six weeks of intensive training that covered navigation, target practice, night air combat, recognition and identification of ships and planes, and simulated night carrier landings and take-offs. It was placed in caretaker status on 1 May 1946 and leased to Dukes County for use as a commercial airport. In 1957, the Navy identified Martha's Vineyard NAAS for disposal and, on 27 August 1959, the property was transferred to Dukes County who continues to operate the airport to this day.

5. **PROJECT DESCRIPTION:**

AREA A:

Size, Acres:	16 (approximately)
Former Usage:	Ammunition/Ordnance Storage Area
Present Usage:	Not used
Probable End Usage:	Same
Ordnance Presence:	Uncontaminated
Type Ordnance:	N/A
Risk Assessment:	5

AREA B:

Size, Acres:	8 (approximately)
Former Usage:	Aircraft Machine Gun Range
Present Usage:	Not used
Probable End Usage:	Same
Ordnance Presence:	Uncontaminated
Type Ordnance:	N/A
Risk Assessment:	5

AREA C:

Size, Acres:	8 (approximately)
Former Usage:	Pistol Range
Present Usage:	Not used
Probable End Usage:	Same
Ordnance Presence:	Uncontaminated
Type Ordnance:	N/A
Risk Assessment:	5

AREA D:

Size, Acres:	45 (approximately)
Former Usage:	Skeet Field
Present Usage:	Not used
Probable End Usage:	Same
Ordnance Presence:	Uncontaminated
Type Ordnance:	N/A
Risk Assessment:	5

AREA E:

Size, Acres:	608 (approximately)
Former Usage:	Aircraft Operations and Administrative Area
Present Usage:	Same
Probable End Usage:	Same
Ordnance Presence	Potential
Type Ordnance	Aircraft bombs/flares
Risk Assessment:	3

6. **CURRENT STRATEGY:**

Area A: No Further Action
Area B: No Further Action
Area C: No Further Action
Area D: No Further Action
Area E: No Further Action

7. **ISSUES AND CONCERNS:**

Area A: Area was only used to store ammunition for upload to aircraft; no evidence that ordnance was disposed of in this area; no evidence of OEW contamination noted

Area B: Area was only used to bore sight aircraft machine guns; removed in 1959, may have spent .30/.50 caliber and 20mm bullet fragments

Area C: Area was only used as a pistol range; removed in 1946, may have spent .45 caliber bullet fragments

Area D: Only 12-gage shotguns fired in this area; no evidence of OEW contamination noted, may have lead buckshot residue

Area E: No evidence that ordnance was ever fired into or disposed of in this area. Airport Manager claims a "live Bomb" was discovered in 1987 by a contractor digging a trench for electrical cabling along a runway - the only UXO incident ever noted and it could not be confirmed through EOD or Police UXO files; appears to be an isolated incident, if it even occurred.

8. **CURRENT STATUS:**

PA: 100%
ASR: 100%
INTERIM REMEDIAL ACTION: N/A
EE/CA: N/A
RD: N/A
RA: N/A

9. **SCHEDULE SUMMARY:**

Phase	Orig. Start	Sch. Start	Actual Start	Orig. Comp.	Sch. Comp.	Actual Comp.

10. **FUNDING/BUDGET SUMMARY:**

Year	Phase	EXEC FOA	IN House Required	Contract Required	Funds Obligated

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM
for
FORMERLY USED DEFENSE SITES

CONCLUSIONS AND RECOMMENDATIONS

ORDNANCE AND EXPLOSIVE WASTE ARCHIVES SEARCH REPORT FOR MARTHA'S VINEYARD NAVAL AUXILIARY AIR STATION MARTHA'S VINEYARD, MASSACHUSETTS PROJECT NUMBER D01MA048802

September 1994

Prepared for
U.S. Army Corps of Engineers
Huntsville Division
ATTN: CEHND-PM-OT
P.O. Box 1600
Huntsville, Alabama 35807-4301

Prepared by
U.S. Army Corps of Engineers
Rock Island District
ATTN: CENCR-ED-DN
P.O. Box 2004
Rock Island, Illinois 61204-2004

and

U.S. Army Defense Ammunition
Center and School
ATTN: SMCAC-ES
Savanna, Illinois 61074-9639

ORDNANCE AND EXPLOSIVE WASTE
ARCHIVES SEARCH REPORT
FOR
MARTHA'S VINEYARD NAVAL AUXILIARY AIR STATION
MARTHA'S VINEYARD, MASSACHUSETTS
PROJECT NUMBER D01MA048802

ACKNOWLEDGEMENT

The following persons provided support as indicated

Function	Name	Title	Organization	Telephone
On-Site Assessment	Edward M. McManus*	Q.A. Spec., Ammunition (QASAS)	SMCAC-ESL	(815)273-8825
	Richard A. Hale	Q.A. Spec., Ammunition (QASAS)	CENCR-ED-DN	(309)794-5808
Engineering Support	Daniel J. Holmes	Professional Engineer	CENCR-ED-DN	(309)794-5480
Historical Research	Thomas Reinhardt	Historical Records TM	SMCAC-ESL	(815)273-8789
Geographic District Support	Anne Laster	Engineering Technician	CENED-RE-AM	(617)647-8584
Industrial Hygiene	Bob Platt	Industrial Hygienist	HSXP-RIA	(309)782-0806
CADD Support	Jeff Morrisey	Engineering Technician	CENCR-ED-DN	(309)794-5808

*Team Leader

ORDNANCE AND EXPLOSIVE WASTE
ARCHIVES SEARCH REPORT
FOR
MARTHA'S VINEYARD NAVAL AUXILIARY AIR STATION
MARTHA'S VINEYARD, MASSACHUSETTS
PROJECT NUMBER D01MA048802

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are provided by the Archives Search Report Team. These recommendations may not be the actions taken to remediate this site.

TABLE OF CONTENTS

ATTACHMENTS

A. RISK ASSESSMENT (AREAS A, B, C, and D)

B. RISK ASSESSMENT (AREA E)

TABLES

REPORT PLATES

1. SITE LOCATION MAP
2. FACILITY LAYOUT (CIRCA 1945)
3. PROJECT AREAS

ORDNANCE AND EXPLOSIVE WASTE ARCHIVES SEARCH REPORT FOR MARTHA'S VINEYARD NAVAL AUXILIARY AIR STATION MARTHA'S VINEYARD, MASSACHUSETTS PROJECT NUMBER D01MA048802

1. INTRODUCTION

a. Subject and Purpose

(1) This report presents the conclusions and recommendations of an historical records search and site inspection for the presence of ordnance and explosive waste (OEW) at the Former Martha's Vineyard Naval Auxiliary Air Station (NAAS), located on the island of Martha's Vineyard, Dukes County, Massachusetts.

(2) The purpose of this investigation was to characterize the site for actual and/or potential ordnance/chemical warfare materiel (CWM) contamination, using available historical records, interviews, and the results of an on-site visual inspection.

b. Scope

(1) The investigation focused on 685.912 acres of land acquired by the Navy Department during World War II for use as an NAAS to train Naval aviators and air crews (see plate 1).

(2) The conclusions and recommendations presented in this report were drawn from available records and the visual site inspection. The conclusions, including ordnance risk assessments, were based on confirmed/documented evidence and potential/reasonably inferred evidence from the investigation. The recommendations made are based on present DERP-FUDS program goals and policies, with implementation subject to approval and appropriate funding actions.

2. CONCLUSIONS

a. Summary of Conclusions

(1) Table 2-1 provides a summary of conclusions made on confirmed and potential OEW on/within the Former Martha's Vineyard NAAS. Explanations are included in subsequent paragraphs.

TABLE 2-1
SUMMARY OF CONCLUSIONS

Area	Former Usage	Present Usage	Probable End Usage	Size Acres	FUDS ELIGIBILITY		ORDNANCE PRESENCE			Risk Assessment Code
					Confirmed FUDS	Potential FUDS	Confirmed Ordnance Presence	Potential Ordnance Presence	Uncontaminated	
A	Ammunition/ Ordnance Storage	Commercial Airport	same	16*	yes	-	-	-	yes	5
B	Aircraft Machine Gun Range	Commercial Airport	same	8*	yes	-	-	-	yes	5
C	Pistol Range	Commercial Airport	same	8*	yes	-	-	-	yes	5
D	Skeet Field	Commercial Airport	same	45*	yes	-	-	-	yes	5
E	Aircraft Operations and Administrative Area	Commercial Airport	same	608*	yes	-	-	yes	-	3

*Acreage is approximate only

(2) Confirmed ordnance presence indicates that OEW contamination has been verified since site closure. Potential ordnance presence indicates that, while no verifiable information could be obtained indicating OEW contamination since site closure and release from government control, historical data exists that indicates a strong possibility for contamination.

b. Historical Site Summary

Martha's Vineyard Naval Auxiliary Air Facility (NAAF) (changed to NAAS in 1945) was built in 1942-43 to support the final phase of training for naval aviators and air crews prior to their deployment to aircraft carriers in the Pacific theater. It was located on 685.912 acres within the Martha's Vineyard State Forest and served as an auxiliary field for Quonset Point Naval Air Station (NAS) in Rhode Island. This installation included three main wind runways, barracks, bachelor officer quarters, subsistence building, hangar, administration building, ambulance and fire truck garage, dispensary, storehouse, Public Works building, gasoline storage and dispensing facilities, utilities and services, three firing ranges (for pistols, skeet, and aircraft machine gun bore sighting), and ammunition/ordnance storage structures. Thousands of men received six weeks of intensive training covered navigation, target practice, night air combat, recognition and identification of ships and planes, and simulated night carrier landings and take-offs. It was placed in caretaker status on 1 May 1946 and leased to Dukes County for use as a commercial airport. In 1957, the Navy identified Martha's Vineyard NAAS for disposal and, on 27 August 1959, the property was transferred to Dukes County who continues to operate the airport to this day.

c. Site Eligibility

The 685.912 acres comprising the Former Martha's Vineyard NAAS was investigated under a Preliminary Assessment in March 1992. The subsequent Findings and Determination of Eligibility (FDE), dated 23 March 1992, stated that the site had been determined to be formerly used by the Department of Defense and is eligible under the Defense Environmental Restoration Program - Formerly Used Defense Sites (DERP-FUDS).

d. Visual Site Inspection

(1) The site inspection was conducted on 6 August 1994. During this inspection no OEW was observed by the inspection team on the former Martha's Vineyard NAAS.

(2) Interviews with site-related personnel and landowners did not confirm any history of problems with OEW contamination since site closure, save for one isolated incident in 1987 which could not be verified.

e. Confirmed Ordnance Areas

Confirmation of ordnance presence is based on the direct witness of ordnance items or documented evidence verifying actual witness by others since site closure. No OEW contamination was confirmed for the Former Martha's Vineyard NAAS.

f. Potential Ordnance Areas

Potential ordnance presence is based upon a lack of confirmed OEW coupled with the likely existence of OEW contamination in an area due to its verified use and known presence of ordnance-related operations during DOD ownership. Due to a single UXO-related anecdote concerning a buried "live bomb," Area E is considered a potential ordnance area.

g. Uncontaminated Ordnance Areas

Uncontaminated ordnance areas are based on a lack of confirmed or potential ordnance contamination. Areas A, B, C, and D are considered uncontaminated based upon lack of confirmed/potential OEW findings (see plate 2). The risk assessments and Table 2-1 are based upon this premise.

h. Other Environmental Hazards

(1) Hazardous, Toxic, and Radiological Waste (HTRW) - there was no visible evidence of typical HTRW contamination. However, due to three years of almost nonstop training involving thousands of aviators heavy metal contamination from lead shot or bullets may exist in Areas B, C, and D.

(2) Building Demolition/Debris Removal (BD/DR) - though numerous dilapidated NAAS buildings remain, even after a 1993 BD/DR project, it appears that none of these structures are eligible for removal under the DERP-FUDS program.

3. RECOMMENDATIONS

a. Summary of Recommendations

Table 3-1 on the following page includes an overall summary of the site recommendations. Explanations are included in subsequent paragraphs.

b. Preliminary Assessment Actions

The Preliminary Assessment of Martha's Vineyard NAAS and the Findings and Determination of Eligibility (FDE) accurately describe the 685.912 acres as former Navy Department property. No other preliminary assessment action will be required at this time.

TABLE 3-1
SUMMARY OF RECOMMENDATIONS

Area	Former Usage	Size Acres	PA Actions	OEW Actions				HTRW Actions	BD/DR Actions
			Prepare INPR	No Further Action	Perform ASR	Implement Interim Removal	Perform EE/CA	Perform SI	Perform SI
A	Ammunition/ Ordnance Storage	16*	-	yes	-	-	-	-	-
B	Aircraft Machine Gun Range	8*	-	yes	-	-	-	yes	-
C	Pistol Range	8*	-	yes	-	-	-	yes	-
D	Skeet Field	45*	-	yes	-	-	-	yes	-
E	Aircraft Operations and Administrative Area	608*	-	yes	-	-	-	-	-

*Acreage is approximate only

c. Ordnance and Explosive Waste Actions

(1) In consideration of its primary mission as a Naval flight training facility, Martha's Vineyard NAAS should not have been contaminated with OEW during normal military operations. The testimony of three sailors stationed at this post during the time it was operational supports that premise. Post site closure experience further buttresses that argument since area EOD detachments and the county UXO expert report no incidents of UXO or OEW discoveries on this site since it was closed. Consequently, Areas A, B, C, and D should be considered uncontaminated save for the spent bullet fragments and buckshot on its ranges which are not an OEW hazard. No OEW remediation actions are necessary.

(2) Area E

The discovery of a "live bomb" in 1987 during excavation for runway lighting wiring appears to be an isolated incident and not indicative of a greater problem; it was mentioned by only one individual and could not be verified by EOD records. Lacking a pattern or purpose of ordnance/ammunition usage or contamination, this area seems an unlikely candidate for OEW remediation. No OEW remediation actions are necessary or recommended.

d. Other Environmental Remediation Actions

(1) Hazardous, Toxic, and Radiological Waste (HTRW)

Recommended HTRW actions are summarized in Table 3-1. Due to the use of Areas B, C, and D as firing ranges for aircraft machine guns, pistols, and skeet, recommend a site investigation (SI) to determine the extent of possible heavy metal contamination due to the presence of lead in the spent bullets and buckshot.

(2) Building Demolition/Debris Removal (BD/DR)

No BD/DR remediation actions are necessary or recommended.

ORDNANCE AND EXPLOSIVE WASTE
ARCHIVES SEARCH REPORT
FOR
MARTHA'S VINEYARD NAVAL ARTILLERY AIR STATION
MARTHA'S VINEYARD, MASSACHUSETTS
PROJECT NUMBER DO1MA048802

ATTACHMENT A

RISK ASSESSMENT

18 Apr 94

Previous editions obsolete

RISK ASSESSMENT PROCEDURES FOR
ORDNANCE AND EXPLOSIVE WASTE (OEW) SITES

Site Name	Martha's Vineyard NAAS	Rater's Name	Edward M. McManus
Site Location	Martha's Vineyard, MA	Phone No.	815-273-8825
DERP Project #	D01MA048802	Organization	CENCR-ED-DN/SMCAC-ESL
Date Completed	30 September 1994	RAC Score	5 (Areas A,B,C and D)

OEW RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHND to prioritize the remedial action at Formerly Used Defense Sites. The OEW risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OEW hazards identified at the site. The risk assessment is composed of two factors, **hazard severity and hazard probability**. Personnel involved in visits to potential OEW sites should view the CEHND video tape entitled "A Life Threatening Encounter: OEW."

Part 1. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPES OF ORDNANCE
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Cal (20 mm and larger)	10
Bombs, Explosive	10
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	1
Conventional Ordnance and Ammunition (Select the largest single value)	0

What evidence do you have regarding conventional OEW? Historical evidence of site's use as an airfield to train WWII naval aviators and lack of evidence to indicate otherwise.

B. Pyrotechnics. (For munitions not described above)

	VALUE	
Munition (Container) Containing White Phosphorous or other Pyrophoric Material (i.e., Spontaneously Flammable)	10	
Munition Containing a Flame or Incendiary Material (i.e. Napalm, Triethlaluminum Metal Incendiaries)	6	
Flares, Signals, Simulators, screening smoke (other than WP)	4	
Pyrotechnics (Select the largest single value)		0

What evidence do you have regarding pyrotechnics? Historical evidence to indicate site's use only to train naval aviators.

C. Bulk High Explosives (Not an integral part of convention ordnance; uncontainerized.)

	VALUE	
Primary or Initiating Explosive (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10	
Demolition Charges	10	
Secondary Explosives (PETN, Composition A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.).	8	
Military Dynamite	6	
Less Sensitive Explosives (Ammonium Nitrate, Explosive D, etc.).	3	
High Explosives (Select the largest single value)		0

What evidence do you have regarding bulk explosives? Historical evidence to indicate site's use only to train naval aviators.

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)

	VALUE	
Solid or Liquid Propellants	6	
Propellants		0

What evidence do you have regarding propellants? Historical evidence to indicate site's use only to train naval aviators.

E. Radiological/Chemical Agent/Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear, etc.)	5

Radiological/Chemical Agent (Select the largest single value) 0

What evidence do you have of chemical/radiological OEW? Historical evidence indicating site's use only to train naval aviators.

==========

Total Hazard Severity Value 0
(Sum of Largest Values for A through E--Maximum of 61)
Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	II	10 to 20
MARGINAL	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		(0)

*** Apply Hazard Severity Category to Table 3.**

** If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other related factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF CONTAMINATION
(Circle all values that apply)

A. Locations of OEW Hazards

	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings or Structures	3
Subsurface	2

Location (Select the single largest value) _____

What evidence do you have regarding location of OEW? _____

_____

_____

B. Distance to nearest inhabited locations or structures likely to be at risk from OEW hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	5
1250 feet to 0.5 miles	4
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1

Distance (Select the single largest value) _____

What are the nearest inhabited structures? _____

C. Number of buildings within a 2 mile radius measured from the OEW hazard area, not the installation boundary.

	VALUE
26 and over	5
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0

Number of Buildings (Select the single largest value) _____

Narrative _____

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	5
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0

Types of Buildings (Select the largest single value) _____

Describe types of buildings in the area. _____

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or security system	5
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	4
A barrier, (of any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security guard, but no barrier	2
Isolated Site	1
a 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility, or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitor, locked entrance, or controlled roadway access to the facility).	0

Accessibility (Select the single largest value) _____

Describe the site accessibility. _____

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Example would be excessive soil erosion by beaches or streams, increasing land development that could reduce distance from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	5
None Anticipated	0

Site Dynamics (Select largest value) _____

Describe the site dymnamics. _____

Total Hazard Probability Value
(Sum of Largest Values for A through F--Maximum of 30) _____

Apply this value to Hazard Probability Table 2 to determine Hazard Probability Level.

TABLE 2

HAZARD PROBABILITY

Description	Level	Hazard Probability Value
FREQUENT	A	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	C	15 to 20
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

*** Apply Hazard Probability Level to Table 3.**

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	II	1	2	3	4	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

RAC 1 Expedite INPR, recommending further action by CEHND - Immediately call CEHND-ED-SY--Comercial 205-955-4968 or DSN 645-4968.

RAC 2 High priority on completion of INPR - Recommend further action by CEHND.

RAC 3 Complete INPR - Recommend further action by CEHND.

RAC 4 Complete INPR - Recommend further action by CEHND.

(RAC 5) Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHND.

Part IV. Narrative. Summarize the documented evidence that support this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

Primary mission of this site was to train World War II naval aviators. While ordnance was stored on site while it was operational, there is no evidence to indicate that any of these munitions were intentionally expended or disposed of on site or left behind when site was closed. No EOD or Police Reports exist concerning post site closure discovery of OEW or UXO. Aviators dropped/fired ordnance on nearby range at Noman's Land Island.

ORDNANCE AND EXPLOSIVE WASTE
ARCHIVES SEARCH REPORT
FOR
MARTHA'S VINEYARD NAVAL ARTILLERY AIR STATION
MARTHA'S VINEYARD, MASSACHUSETTS
PROJECT NUMBER DO1MA048802

ATTACHMENT B

RISK ASSESSMENT

18 Apr 94
Previous editions obsolete

RISK ASSESSMENT PROCEDURES FOR
ORDNANCE AND EXPLOSIVE WASTE (OEW) SITES

Site Name	Martha's Vineyard NAAS	Rater's Name	Edward M. McManus
Site Location	Martha's Vineyard, MA	Phone No.	815-273-8825
DERP Project #	D01MA048802	Organization	CENCR-ED-DN/SMCAC-ESL
Date Completed	30 September 1994	RAC Score	3 (Area E)

OEW RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHND to prioritize the remedial action at Formerly Used Defense Sites. The OEW risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OEW hazards identified at the site. The risk assessment is composed of two factors, **hazard severity and hazard probability**. Personnel involved in visits to potential OEW sites should view the CEHND video tape entitled "A Life Threatening Encounter: OEW."

Part 1. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPES OF ORDNANCE
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Cal (20 mm and larger)	10
Bombs, Explosive	(10)
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	1
Conventional Ordnance and Ammunition (Select the largest single value)	10

What evidence do you have regarding conventional OEW? Anecdote relating discovery of "Live Bomb" in 1987.

B. Pyrotechnics. (For munitions not described above)

	VALUE	
Munition (Container) Containing White Phosphorous or other Pyrophoric Material (i.e., Spontaneously Flammable)	10	
Munition Containing a Flame or Incendiary Material (i.e. Napalm, Triethlaluminum Metal Incendiaries)	6	
Flares, Signals, Simulators, screening smoke (other than WP)	(4)	
Pyrotechnics (Select the largest single value)		4

What evidence do you have regarding pyrotechnics? Indications that flares were accidentally dropped on the site during training.

C. Bulk High Explosives (Not an integral part of convention ordnance; uncontainerized.)

	VALUE	
Primary or Initiating Explosive (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10	
Demolition Charges	10	
Secondary Explosives (PETN, Composition A, B, C, Tetryl, TNT, RDX, HMX, HBX, Black Powder, etc.).	8	
Military Dynamite	6	
Less Sensitive Explosives (Ammonium Nitrate, Explosive D, etc.).	3	
High Explosives (Select the largest single value)		0

What evidence do you have regarding bulk explosives? Historical evidence of site's use as an airfield to train WWII naval aviators and lack of evidence to indicate otherwise.

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)

	VALUE	
Solid or Liquid Propellants	6	
Propellants		0

What evidence do you have regarding propellants? Historical evidence of site's use as an airfield to train WWII naval aviators and lack of evidence to indicate otherwise.

E. Radiological/Chemical Agent/Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear, etc.)	5

Radiological/Chemical Agent (Select the largest single value) 0

What evidence do you have of chemical/radiological OEW? Historical evidence of site's use as an airfield to train WWI naval aviators and lack of evidence to indicate otherwise.

Total Hazard Severity Value 10
(Sum of Largest Values for A through E--Maximum of 61)
Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	II	10 to 20
MARGINAL	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		0

*** Apply Hazard Severity Category to Table 3.**

** If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other related factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF CONTAMINATION
(Circle all values that apply)

A. Locations of OEW Hazards

	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings or Structures	3
Subsurface	(2)

Location (Select the single largest value) 2

What evidence do you have regarding location of OEW? Supposedly near airport runway along path of underground electrical wiring.

B. Distance to nearest inhabited locations or structures likely to be at risk from OEW hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	(5)
1250 feet to 0.5 miles	4
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1

Distance (Select the single largest value) 5

What are the nearest inhabited structures? Airport terminal and administration buildings.

C. Number of buildings within a 2 mile radius measured from the OEW hazard area, not the installation boundary.

	VALUE
26 and over	5
16 to 25	(4)
11 to 15	3
6 to 10	2
1 to 5	1
0	0

Number of Buildings (Select the single largest value) 4

Narrative Airport is surrounded by a state forest of more than 4,000 acres.

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	(5)
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0

Types of Buildings (Select the largest single value) 5

Describe types of buildings in the area. Mainly airport administration buildings and maintenance structures, some family residences.

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or security system	5
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to *deny egress from the site, as for a barbed wire fence* for grazing.	4
A barrier, (of any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	(3)
Security guard, but no barrier	2
Isolated Site	1
a 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility, or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitor, locked entrance, or controlled roadway access to the facility).	0
Accessibility (Select the single largest value)	3

Describe the site accessibility. Access to runways is restricted and controlled by FAA Regulations.

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Example would be excessive soil erosion by beaches or streams, increasing land development that could reduce distance from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	5
None Anticipated	(0)
Site Dynamics (Select largest value)	0

Describe the site dymnamics. Airport Commission has no plans to build in this area.

Total Hazard Probability Value
(Sum of Largest Values for A through F--Maximum of 30) 19

Apply this value to Hazard Probability Table 2 to determine Hazard Probability Level.

TABLE 2

HAZARD PROBABILITY

Description	Level	Hazard Probability Value
FREQUENT	A	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	C	15 to 20
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

*** Apply Hazard Probability Level to Table 3.**

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	OCCASIONAL (C)	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	(II)	1	2	(3)	4	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

RAC 1 Expedite INPR, recommending further action by CEHND - Immediately call CEHND-ED-SY--Comercial 205-955-4968 or DSN 645-4968.

RAC 2 High priority on completion of INPR - Recommend further action by CEHND.

(RAC 3) Complete INPR - Recommend further action by CEHND.

RAC 4 Complete INPR - Recommend further action by CEHND.

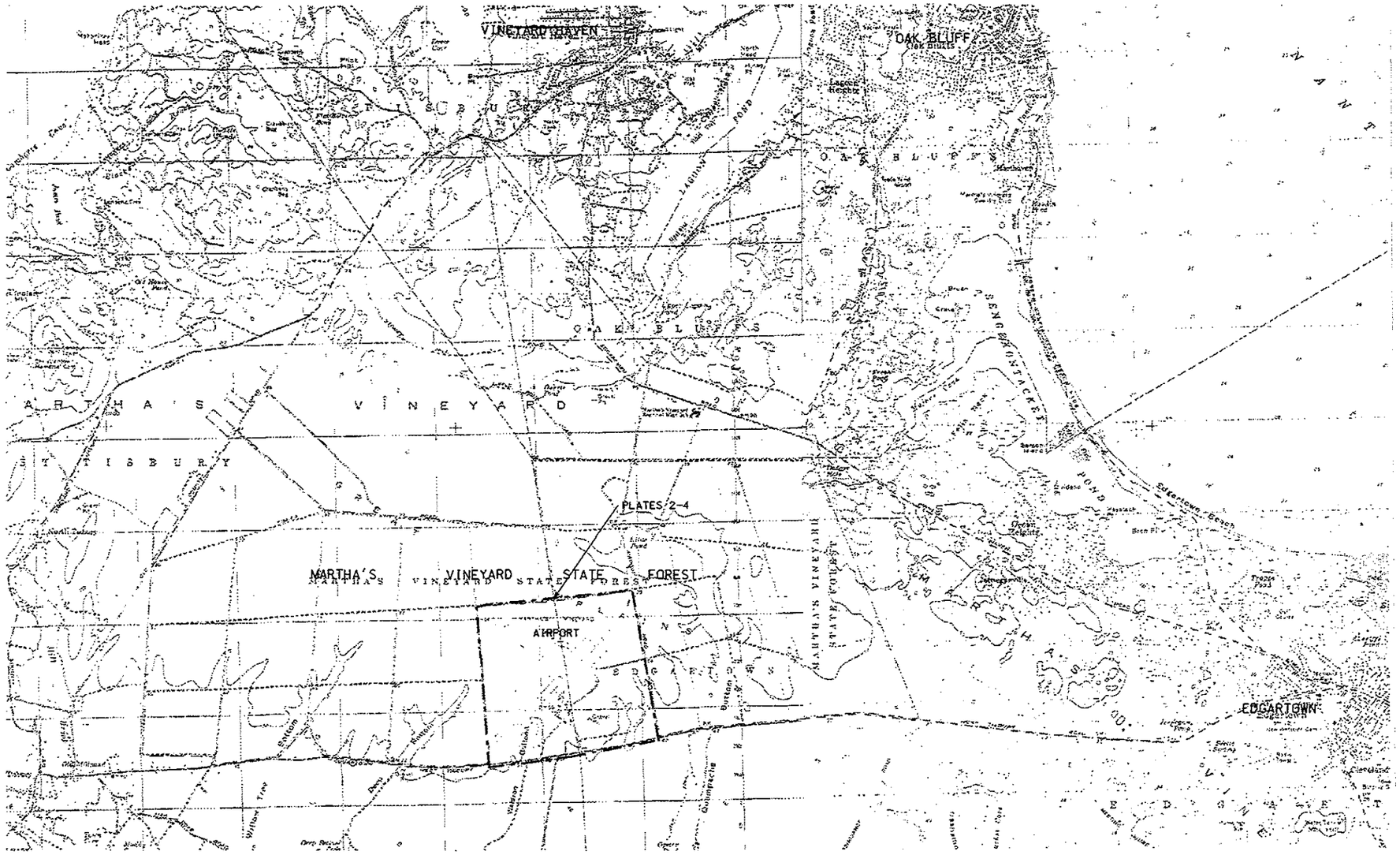
RAC 5 Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHND.

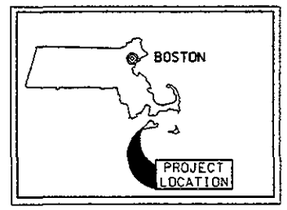
Part IV. Narrative. Summarize the documented evidence that support this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

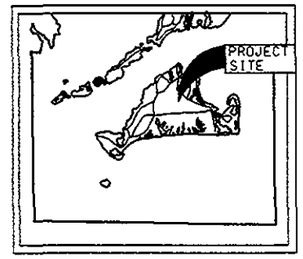
No documented evidence to support the assertion of the Airport Manager that a "live bomb" was discovered by a contractor in 1987 who was digging a trench for electrical cabling along a runway. No EOD or police reports exist confirming this "incident". Would appear to be an isolated incident, if it happened at all. RAC is based purely upon potential OEW contamination.

ORDNANCE AND EXPLOSIVE WASTE
ARCHIVES SEARCH REPORT
FOR
MARTHA'S VINEYARD NAVAL AUXILIARY AIR STATION
MARTHA'S VINEYARD, MASSACHUSETTS
PROJECT NUMBER D01MA048802

REPORT PLATES







LEGEND:

1943 SITE BOUNDARY

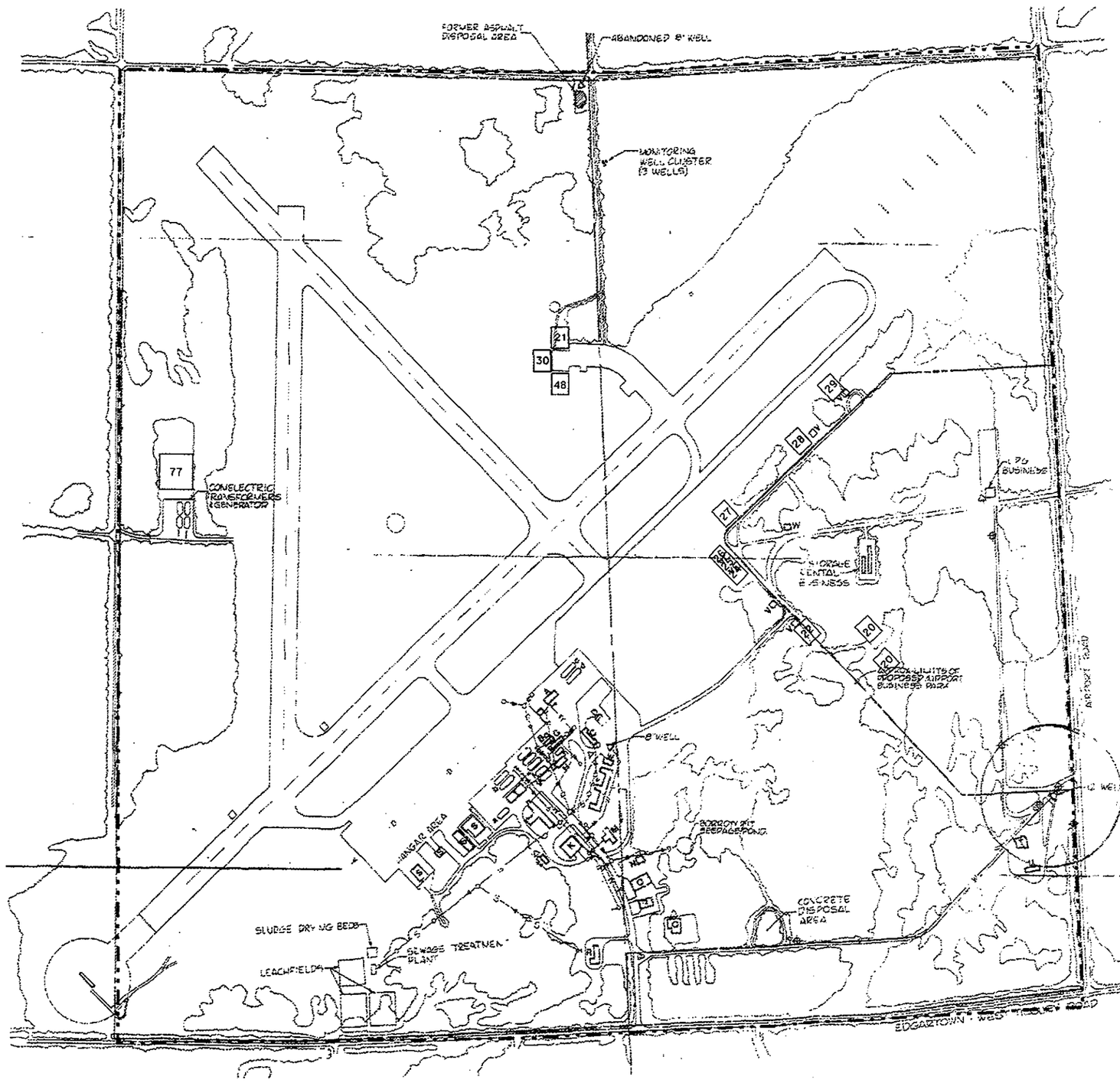
2000 1000 0 2000 4000FT

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: E.M.	MARTHA'S VINEYARD NAVAL AUXILIARY AIR STATION MARTHA'S VINEYARD, MASS.
Drawn by: J.A.M.	
Checked by:	SITE LOCATION
Reviewed by: DJH	Scale:
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS	Date:
	Drawing Codes:
	Sheet reference number:
	Solicitation Number:
	Sheet of

PLATE 1



N

KEY TO ORDNANCE STORAGE AND USAGE LOCATIONS		
* NUMBERS	PURPOSE	NOTES
20	SKEET RANGES FIRING POINTS	NO LONGER EVIDENT
21	AIRCRAFT MACHINE GUN RANGE	LEVELED 1959
22	TORPEDO STORAGE STRUCTURE	REMOVED 1993
24	PYROTECHNIC STOREHOUSE	REMOVED 1993
25 & 26	SMALL ARMS MAGAZINES	REMOVED 1993
27	FUSE AND DETONATOR MAGAZINE	REMOVED 1993
28 & 29	HIGH EXPLOSIVES MAGAZINES	REMOVED 1993
30	READY MAGAZINE	NO LONGER VISIBLE
48	ROCKET STORAGE QUONSET HUT	REMOVED PRIOR TO SITE CLOSURE
77	PISTOL RANGE	REMOVED 1946
* NUMBERS KEYED TO JUNE 30, 1945 MAP OF MARTHAS VINEYARD NAAF		

LEGEND

- - - - - SITE BOUNDARY

300 150 0 300 600FT

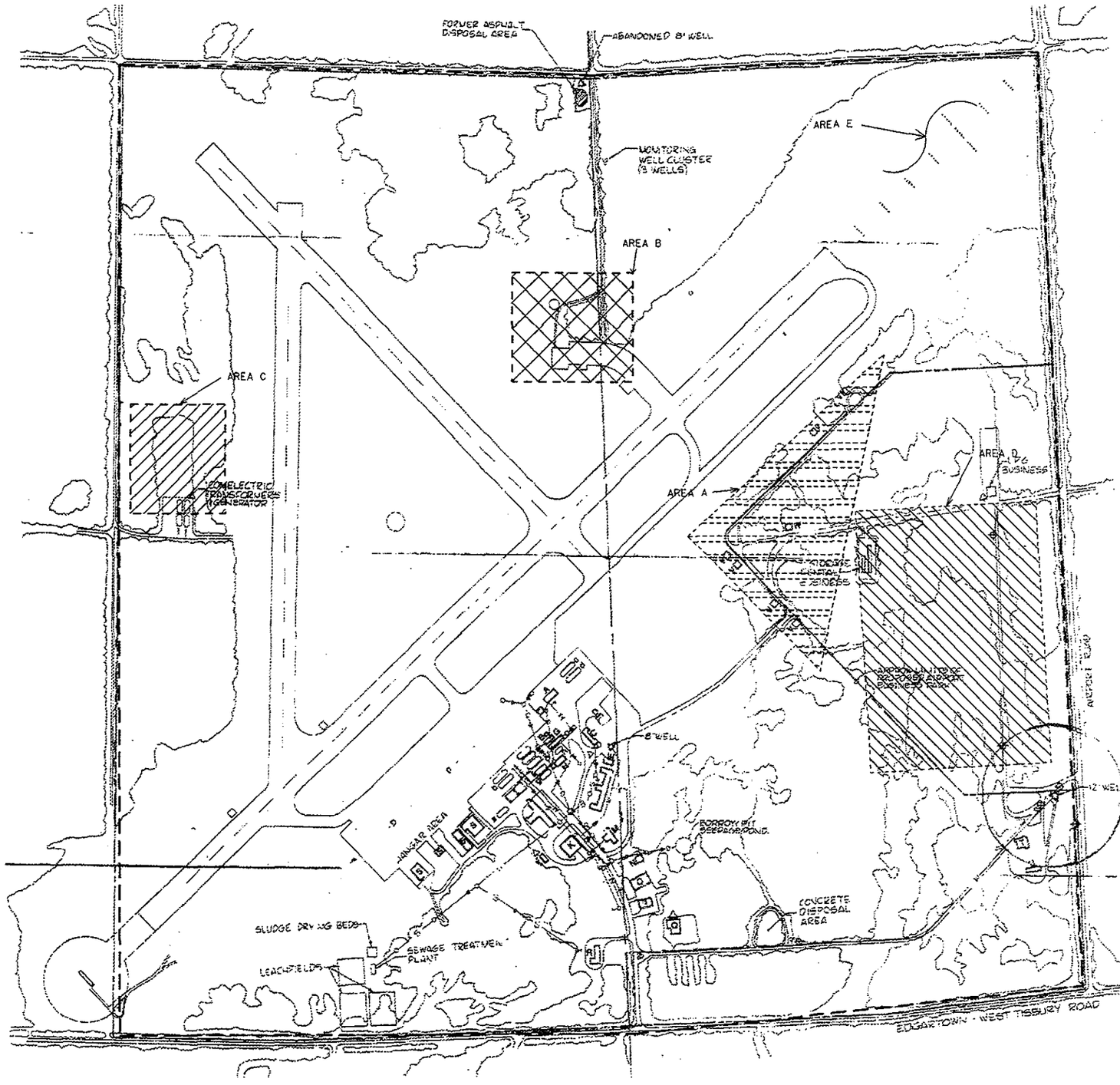
Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: E.M.	MARTHA'S VINEYARD
Drawn by: J.A.M.	NAVAL AUXILIARY AIR STATION
Checked by:	MARTHA'S VINEYARD, MASS.
Reviewed by: DJH	FACILITY LAYOUT CIRCA 1945
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS	Scale: / Date: / Drawing Code: / Sheet reference number: / Solicitation Number: / Sheet of

US Army Corps of Engineers Rock Island District

PLATE 2



SUMMARY OF AREA

AREA		FORMER USAGE	DEW PRESENCE	ACREAGE*
A		AMMO/ORDNANCE STORAGE AREA	UNCONTAMINATED	16
B		AIRCRAFT MACHINE GUN RANGE	UNCONTAMINATED	8
C		PISTOL RANGE	UNCONTAMINATED	8
D		SKEET FIELDS	UNCONTAMINATED	45
E		REMAINING AREA	POTENTIAL	608

*APPROXIMATE ACREAGE

LEGEND:

— — — 1943 NAAF BOUNDARY

300 150 0 300 600FT

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ROCK ISLAND, ILLINOIS

Designed by: E.M.	MARTHA'S VINEYARD
Drawn by: J.A.M.	NAVAL AUXILIARY AIR STATION
Checked by:	MARTHA'S VINEYARD, MASS.
Reviewed by: DJH	PROJECT AREAS
Approved by: ALBERT J. KRAUS COL., CORPS OF ENGINEERS	Scale: / Date: / Drawing Code: / Sheet reference number: / Solicitation Number: / Sheet of

US Army Corps of Engineers Rock Island District

PLATE 3